Caltrans

Water Quality NewsFlash

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Lake Tahoe – *Clarity decreases, flocculation suggested for runoff treatment* – The clarity of the lake decreased in 2003, possibly the result of increased thunderstorms. The lake's turbidity is attributed to phytoplankton growth, supported by nitrogen and phosphorous inputs, and to mineral particles: clay and silt. During a conference last week, Regional Board staff suggested the possible need for the addition of chemical flocculent to stormwater runoff in order to precipitate out the small mineral particles. Story: http://www.rgj.com/news/stories/html/2004/05/17/71006.php

Lake Tahoe – *Atmospheric fallout contributes metals* - Levels of lead and mercury measured in recently deposited lake sediments (after 1850) show significant increases compared with background levels in the watershed bedrock. Lead shows a six-fold increase (average 83 ppm) and mercury a five-fold increase (average 0.191 ppm). The source of the metals is presumed to be direct atmospheric deposition. While the lead may come from local emissions from leaded gasoline (until about 1985), the mercury apparently results primarily from regional and global sources. Mercury tends to preferentially settle out at high, cold elevations.

The atmospheric deposition affecting lake sediments may also contribute to elevated levels of these metals in surface soils. Both metals are a concern in stormwater runoff. These pollutants are at levels high enough to potentially cause compliance problems for runoff carrying moderate levels of surface soils. http://trg.ucdavis.edu/research/annualreport/contents/lake/article11.html

Diseases in Marine Organisms – *Incidence increasing* – For unknown reasons, the incidence of disease appears to be increasing for a wide range of marine organisms. Posted: http://www.plosbiology.org/plosonline/?request=get-document&doi=10.1371%2Fjournal.pbio.0020120 In related news, a relatively high number of sick and dying sea otters have been reported in the last few months. The deaths were originally suspected of resulting from domoic acid poisoning (bioaccumulated through the food chain from phytoplankton) or from a parasite associated with cats. The most recent testing by Fish & Game indicates that most otter deaths this year resulted from an infection with a brain parasite shed by the feces of opossums. How this parasite gets into coastal waters is unclear, but runoff may be a factor http://www.dfg.ca.gov/news/news04/04048.html

Diseases in Surfers – *Incidence higher at urban beaches* – A study from UC Irvine compared the rates of reported health symptoms among surfers in urban North Orange County to those reported in rural Santa Cruz County during two winter seasons. The urban surfers reported almost twice as many symptoms as the rural participants. In both study years, risk increased across symptom categories by an average of 10% for each 2.5 hours of weekly water exposure. Symptoms included nausea, sore throat, diarrhea, vomiting and ear pain. The researchers suggest that discharging untreated urban runoff onto public beaches can pose health risks. Press release: http://horus.vcsa.uci.edu/article.php?id=1668

WQ NewsFlash is a weekly update of storm water and related news for the Department. *Verify information before taking action on these bulletins*. Contact Betty Sanchez, Betty_Sanchez@dot.ca.gov (916) 653-2115, or Fred Krieger, (510) 843-7889, fkrieger@msn.com with questions or to be added or deleted from e-mail list. Posted & searchable online at: http://www.dot.ca.gov/hq/env/stormwater/publicat/newsfax/index.htm